

REMARKS

Claims 52 through 59 remain pending in the application with the present amendments. Applicants submit that claims 52 and 56 as amended herein overcome the objections thereto in the Office Action.

As amended herein, claims 52 and 56 now recite a wiring circuit panel or circuit module in which a plurality of discrete solid metal bumps have top faces which are flush with exposed regions of a major surface of an insulating film. Such structure is illustrated, for example, by bumps 16 having top faces which are flush with an upwardly facing major surface of insulating film 4 (FIG. 1), and as described at page 32, lns. 2-4 of applicants' specification. Solder balls are disposed on the top faces of the metal bumps.

Clearly, neither U.S. Patent No. 6,329,610 to Takubo et al. ("*Takubo*"), nor U.S. Patent No. 6,050,832 to Lee et al. ("*Lee*"), nor the description of the related art in applicants' specification teaches or suggests such structure. As seen in FIG. 3 of *Takubo*, filled conductive vias 33 extend to a height above a major surface of insulating layer 22, such that the filled vias 33 appear to be flush, not with the insulating layer 22 but rather, with respect to portions of a wiring layer 13a.

With respect to *Lee* (FIG. 1), solder balls 16 are not disposed on top faces of bumps which are flush with exposed regions of a major surface of the insulating film. Only the top faces of via connections 28 in *Lee* appear to be flush with the surface of the insulating film. However, an additional top contact layer 30 overlies via connections 28 of interposer 18, such that the solder balls are disposed on the top contact layer 30 rather than on the via connections 28.

In addition, the description of the related art in applicant's specification at pages 1 through 4 neither teaches

nor suggests the wiring circuit panel and circuit module recited in claims 52 and 56. Clearly, neither FIGS. 13A through 13I nor the description thereof in the specification teaches or suggests an insulating film in which solid metal bumps have upwardly facing top faces which are flush with exposed regions of a major surface of an insulating film.

The remaining claims are allowable at least by virtue of their dependence from claims 52 and 56.

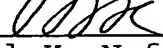
Support for the present amendments, is provided, *inter alia*, in FIG. 1 and at page 32, lns. 2-4 of the specification.

As it is believed that all of the rejections set forth in the Official Action have been fully met, favorable reconsideration and allowance are earnestly solicited. If, however, for any reason the Examiner does not believe that such action can be taken at this time, it is respectfully requested that he telephone applicants' attorney at (908) 654-5000 in order to overcome any additional objections which he might have.

If there are any additional charges in connection with this requested amendment, the Examiner is authorized to charge Deposit Account No. 12-1095 therefor.

Dated: August 1, 2006

Respectfully submitted,

By   
Daryl K. Neff  
Registration No.: 38,253  
LERNER, DAVID, LITTENBERG,  
KRUMHOLZ & MENTLIK, LLP  
600 South Avenue West  
Westfield, New Jersey 07090  
(908) 654-5000  
Attorney for Applicants